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#### ABSTRACT

This study examined the educational and social conditions of 215 hard-of-hearing students (grades 1 to 11) in Sweden, 157 of whom were placed in regular classes, usually as the only hard-of-hearing student in the class. The study interviewed the pupils, surveyed parents and teachers, and conducted a sociometric analysis. Results indicated that the proportion of pupils receiving no choice as preferred partner was substantially greater among the hearing impaired than among their hearing classmates. These proportions increased with the age of the students. Video recordings were made in 13 regular classes to identify significant events or interactions influencing the social situation. These were classified and analyzed under the following headings: (1) physical environment; (2) strategies and patterns of adaptation of the hearing impaired child; (3) help and support from hearing classmates; (4) teacher attitudes and deportment; and (5) the teaching process and planning of lessons. For each category, examples of situations or events, promoting as well as undermining the social position of the hard-of-hearing student, were identified. Contains seven references. (DB)

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Classroom Interaction and the Social Situation of Hard-of-Hearing Pupils in Regular Classes

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#### Abstract

In an investigation initiated in order to look into the educational and social conditions of hard-of-hearing pupils, results showed that many hard-of-hearing pupils in regular classes had an unsatisfactory social situation. Video recordings were made in a number of classes in order to see if it was possible to identify significant events in the classroom or in the interaction between hearing-impaired pupils, teachers, and classmates, that were of importance in the formation of social relations. A number of factors, related to each of the components making up the educational situation - i. e. the physical environment, the hard-of-hearing pupil, the classmates, the teacher, and the teaching process, could be identified.



In order to look into the educational and social conditions of hard-of-hearing pupils in regular schools, a study of all hearing-impaired pupils in grades 1 through 11, placed in the regular school system in the two southernmost counties of Sweden, was carried out (Nordén et al., 1990; Tvingstedt, 1993a, 1993b). Only pupils supplied with hearing aids by audiological specialists were regarded as hearing-impaired and included in the study. All pupils were hard-of-hearing using spoken Swedish as their primary mode of communication. No one today advocates regular mainstreaming of pre-lingually deaf children in Sweden. They attend Schools for the Deaf and their right to sign-language communication is no longer questioned.

The study comprised 215 pupils, 135 boys and 80 girls. The majority, 157 pupils, were placed in regular classes, generally being the only hard-of-hearing subject in the class. About a fourth, 58 pupils, went to small special classes for the hard of hearing. The pupils' average hearing loss, as measured by pure tone audiometry, ranged from less than 25 dB to 93 dB HL in the better ear. Of the pupils placed in regular classes, only 13% had an average hearing loss that was greater than 60 dB in the better ear. For the majority, 60%, the hearing loss was between 30-50 dB. In the special classes 52% of the pupils had a hearing loss of over 60 dB.

Results, obtained in interviews with the pupils, in questionnaires to their parents and teachers and in a sociometric study, showed that many hard-of-hearing pupils in regular classes, had an unsatisfactory social situation. The pupils own reports about peer relations and the results from the sociometric study showed that several of them, particularly among the teenagers, hardly had any friends at all (Tvingstedt, 1993a, 1993b).

In the sociometric study, the proportion of pupils receiving no choice as preferred partner was substantially greater among the hearing impaired than among their hearing classmates. Among the pupils in grades 1-6, 14% of the hearing-aid users received no choice as partner for classroom work against 9% of the hearing pupils. This is the only difference that



is not statistically significant. In the choice of friends during recesses and after school 25% received no choice compared to 9% of the normally hearing. Among the teenagers in grades 7-11, 47% of the hearing-aid users received no choice for either condition. The corresponding proportions for their hearing classmates were 8% for classroom work and 11% for time-off conditions (Tvingstedt, 1993a, 1993b). The proportion of hearing pupils who were never chosen tally with results from other studies (Gronlund, 1959; Hymel & Asher, 1977).

Video recordings were made in 13 regular classes, in order to see if it was possible to identify significant events in the classroom, or in the interaction between hearing-impaired pupils, teachers, and classmates that were of importance in the formation of social relations. In the video recordings a number of factors, related to each of the components making up the educational situation - i. e. the physical environment, the hard-of-hearing pupil, the classmates, the teacher, and the teaching process, was identified. These factors could be classified under the following headings:

- 1. The physical environment and placement in class:
  - Educational consequences
  - Social consequences
- 2. Strategies and patterns of adaptation in the hearing impaired pupil:
  - Observing classmates
  - Raising ones hand too late
  - Remaining passive
  - Handling classroom discussions
- 3. Help and support from hearing classmates:
  - Educational consequences
  - Social consequences



- 4. Teacher attitudes and deportment:
  - Model for social interaction
  - Adaptation to the pupil
- 5. The teaching process and planning of lessons:
  - Repeating answers
  - Use of written information
  - Reading and listening simultaneously
  - Use of tape recorder

Under each heading examples of situations or events, promoting as well as undermining the social position of the hard-of-hearing pupil, could be identified. The importance of visual information in both educational and social settings was evident.

The physical environment and placement in class

# Educational consequences

In the analysis of the video recordings it became apparent that seating arrangements could have a reinforcing or abating effect on what was perceived as disturbing behavior.

When placed in a regular class it is usually recommended that the hard-of-hearing pupil is seated in the front, but if the other pupils are seated in rows behind, the hard of hearing has limited opportunities to follow what goes on in class. The hard-of-hearing pupils' need for visual information may call for frequent changes in the direction of gaze and pupils in the front row, struggling to obtain glimpses of what goes on behind them, may often appear restless.

This was the case with a boy in grade three who could be observed constantly turning back and forth, looking at the classmates behind him and the teacher in front of him, thus



changing direction of gaze as often as 18 times in 30 seconds. He gave an immediate impression of restlessness and was characterized as 'fidgety' by the teacher. However, when the video recordings were scrutinized, it became apparent that he was actually striving to keep up with the lesson -- to see who was answering and what was said, what book to work with or which page to read.

Another boy of the same age in a class sitting in a U-shaped arrangement, was calm and relaxed. He could observe what was going on in class, and who was talking, by just looking up. Placement in U-form allows for shifting of gazes without gross body movements. Then the hard of hearing can keep up with what is going on and will be less distracting to others.

### Social consequences

The exchange of messages in social interaction is not confined to the auditory channel. Meaning is largely conveyed through visually perceived behaviors — eye contact, facial expressions, gestures and so forth. To achieve social competence, hearing impaired children need to rely on proficiency in interpreting visual non-verbal communicative behaviors to a much larger extent than children with normal hearing (Hummel & Schirmer, 1984). However, to be able to interpret visual signals and become aware of the social rules in peer interactions, hearing-impaired pupils must be seated so that they can see what is going on in class.

The video recordings revealed several incidents where hard-of-hearing pupils in the front row tried to contact classmates sitting behind and then being dismissed -- often rightly so, since the contact initiatives were ill-timed. Proper timing of initiatives is of crucial importance in social interaction, and this is definitely not facilitated by a placement in the front row where classmates can neither be seen nor heard. Such a placement can deprive the



hearing-impaired pupil of useful social learning opportunities and may impose a position as a neglected or even rejected person in the peer group.

Hard-of-hearing pupils sitting in U-form, took part in the non-verbal interaction in class to a much larger extent and there were many examples of how they exchanged glances, nods and smiles with classmates.

Strategies and patterns of adaptation in the hearing-impaired pupil

In the video recordings, it also became obvious that the hearing-impaired pupils themselves made use of a number of special strategies in order to deal with the classroom situation -- to ensure that enough information was acquired, or to avoid getting into embarrassing situations.

# Observing classmates

One characteristic behavior pattern among the hard-of-hearing pupils was never to start a new activity, like picking up new study material, opening a new book etc., until the other pupils had begun. Thus they were able to observe what the others were doing and could avoid making mistakes or having to ask, when they were not certain of having perceived the instructions correctly -- and hard-of-hearing pupils never are certain.

### Raising ones hand too late

It also became evident that some pupils on occasions when the teacher asked questions did not raise their hand until someone else was called upon to answer. Since this was also done in situations when the teacher asked questions about printed material in front of the



pupils, the most likely interpretation seemed to be that the behavior was a way of showing the teacher that the hearing-impaired pupil wanted to join in, but maybe was not quite sure of how the question was worded. This was corroborated by the finding that some pupils by repeatedly applying this strategy, could make the teacher approach them and put a question addressed directly to them, in a distinct voice and at close range, facilitating lip-reading, which made it much easier to perceive -- and then they answered correctly.

### Remaining passive

There were however also examples of pupils who consistently never raised their hand during an entire school day. They could look like they were following the classroom dialogue, or put up a thoughtful face as if they were pondering over a question, but they never raised their hand -- neither to answer questions nor to ask for help themselves. Since many hard-of-hearing pupils spend considerable parts of their school time in uncertainty about the content of questions and comments, there is an imminent risk that they may lapse into a totally passive role. Hence it is important for the teacher to keep an eye on pupils who tend to withdraw and take active measures to bring them back into classroom activities.

#### Handling classroom discussions

One of the major problems for hard-of-hearing pupils is the difficulty to follow classroom discussions. In the video recordings it could be observed how different pupils chose to handle the problem -- a choice that seemed partly related to the pupils themselves, partly to the teaching.

Some pupils, mostly in classes with predominantly teacher directed frontal teaching, could be seen doing their utmost to keep up with everything that was said in class -- often



with dubious results -- and maybe this strategy is necessary when instruction is carried through in this way.

Other hard-of-hearing pupils, more often in classes where pupils mostly worked on their own, with individual assignments, seemed to more actively choose which discussions to join and which to ignore. Then they would sit back and e. g. read a text in a book instead.

### Help and support from hearing classmates

## Educational consequences

Hearing-impaired pupils frequently have to rely on help from classmates to make sure that they have understood correctly and know what is going to happen next. In the video recordings, there were many examples of how a helping friend made it easier for the hearing-impaired to follow the teaching. A classmate sitting next, and showing what passage to study in the book, where to start reading aloud when it is one's turn, explaining when one has not perceived or has misinterpreted, was obviously an asset and sometimes almost a prerequisite for the hard-of-hearing pupil to follow the teaching on conditions at least reasonably similar to those of the other pupils.

# Social consequences

On many occasions the hard-of-hearing pupil is thus dependent on help from friends.

But if one party is always the donor and the other the constant recipient, a one-sided dependency in peer relations may be induced.

In one class where a hard-of-hearing girl was working together with a hearing classmate, collecting newspaper articles on a special theme, the hearing girl took command and did all the qualified work, using the hearing impaired to fetch scissors and tape, tidy up



and dispose of paperscraps etc. The hard-of-hearing girl was a good student and this distribution of work was not warranted. The two girls usually worked together and had chosen each other in the sociometric study.

Always having to depend on others, and never being made to contribute, premotes neither self-confidence nor personal maturity. Such a situation may also make for peer relations where the hearing-impaired person is assigned to, and accepts, an inferior position. For the teacher it is therefore necessary to keep an eye on interactions and maybe make deliberate attempts to bring about a balance in mutual relations. Seatings can be arranged so that the hearing impaired has a friend close by who is able to supply help in an adequate way. But it may also be necessary to openly show confidence in the capacity of the hard-of-hearing pupil, giving him opportunity to make use of his assets in the work and interaction in class.

### Teacher attitudes and deportment

#### A model for social interaction

The teacher's ability to handle the class and to support the standing of the hearing-impaired pupil, may be of crucial importance to the pupil's position in the group. In the video recordings, there were instances when teacher behavior was instrumental in sustaining the status of the pupil; but there were other cases where the teacher more or less undermined the pupil's position. The teacher's attitude towards the hard of hearing could so obviously affect interaction that it had a direct influence on the classmates. Through his or her own deportment, the teacher knowingly or unknowingly set a pattern of behavior towards the hearing-impaired person which served as a model to the other pupils.



## Adaptation to the pupil

The teacher's capacity for empathy turned out to be another important factor. There were good examples of teachers who, through observations and discussions with the hard-of-hearing pupil, tried to put themselves in that pupil's position and adapt the teaching as well as their own behavior to the faculties and needs of the pupil. This behavior encompassed not only respect for the pupil's personal integrity and confidence in his capacity, but also a flexible attitude which occasionally allowed the hearing-impaired pupil to be different in order to be able to develop normally.

# The teaching process and planning of lessons

Since the teaching process and planning of lessons is a quite familiar domain, only a few final points will be made.

A hearing impairment not only makes it difficult to hear, it causes misunderstandings too, since the hearing impaired sometimes 'hears' something else than what was actually said. To many hearing impaired this entails a constant uncertainty as to whether they have understood correctly. To enable the hard-of-hearing pupil to be sure that he has perceived the 'proper' messages, complementary visual information must be provided -- written directions, help from peers, opportunities to look at the speaker and so on.

In the video-redorded lessons this unfortunately occurred too infrequently. There were several examples showing that necessary information was missing, and the hard-of-hearing pupil did not know what to do, or did not even have a clue as to what the lesson was about until a friend scribbled a few explanatory words on a piece of paper. Besides, such incidents



put the hard of hearing in an embarrassing situation, which may make them appear awkward in the eyes of their classmates.

Hodgson (1984) also points out that if oral comments have to be made when working with visual material, the hearing-impaired pupil should have access to individualized instruction or help from a friend. In one class where the teacher gave instructions and asked questions, simultaneously requiring pupils to read in a book, the hard-of-hearing pupil constantly changed the direction of his gaze back and forth between the book and the teachers face. The effort to read and listen at the same time put him at a disadvantage and made it more difficult to accomplish the task. The difficulty of listening effectively while working with written material also raises problems when it comes to making notes.

Teaching should be organized in a way that enables the pupil to know what is going to happen next and makes note-taking superfluous. In the video recordings there were some fine examples of how a written orientation about the content of the lesson and written directions on how to perform the tasks, made the work easier for the hearing impaired. When the teacher

also prepares a short written summary of items to be remembered, then the hard-of hearing

pupil may calmly follow the teaching and be certain of not having missed essential

information.



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